

## ABSTRACT

A projection display apparatus employs a plurality of projectors 1, 2, 3 and combines images from the projectors into a large composite image on a nonplanar screen such as a concave spherical screen 10. The composite image is of high quality and high resolution and is normally visible by audience. The projectors 1, 2, 3 receive video signals through a geometric conversion unit and project and display images on the nonplanar screen 10 according to the received video signals. The geometric conversion unit transforms the field angles of images to display, according to relationships among the positions of the projectors 1, 2, 3, the positions of areas of the nonplanar screen 10 to which the projectors project images, and the position of an audience, thereby compensating distortions of images caused by the nonplanar shape of the screen 10.